CONTRIBUTIONS TO THE PATHOLOGY OF INFANTILE CEREBRAL PALSIES.

Dr. B. SACHS read a paper of this subject,

He stated that the mere form of the palsy, while pointing to a different location and varying extent of the lesion, should not constitute a sufficient reason for the creation of special types,and that a hemiplegia, a diplegia,or paraplegia might be due to the same morbid processes. Also that although the majority of the cases were of the distinctly spastic type, flaccid paralyses did sometimes occur, which were unquestionably of cerebral origin ; and again, that there were a few atrophic palsies due to lesion in the brains and not to lesions in the spinal cord or the peripheral nerves. These features, taken in conjunction with the occurrence of dementia or epilepsy, and with the typical contractures and exaggerated reflexes, made the diagnosis a very positive one. Out of the two hundred cases seen,doubt as to the spinal or cerebral origin was entertained in but a single instance. Hemorrhage, thrombosis and embolism were positively proven to be the most frequent lesions in the acute cerebral cases. Other conditions so often cited were terminal and not initial morbid states. Reasoning by analogy, Strumpell had concluded that a certain number of cases of acute infantile cerebral palsies were similiar in every respect to cases of poliomyelitis anterior, except that the symptoms pointed distinctly to a cerebral and not a spinal trouble. It was natural, therefore, for him to claim that the gray matter of the cortex was subject to the same changes that affected the gray matter of the spinal cord; hence, if we knew of a condition of poliomyelitis anterior, why should there not be a condition of polioencephalitis? There was no inherent reason why not, except that proof was wanting. Strumpell himself had abandoned the idea of a polioencephalitis, and now spoke of primary encephalitis; but even this theory must be accepted with some reserve. All the evidence which had been collected by the speaker was entirely against the assumption that a primary encephalitis was the rule in the acute brain palsies of children. Of the three autopsies which he had made, each presented a condition entirely different from the other two. The first case reported was only interesting as a contribution to the pathology of this special subject, but was able to stand on its own merits as a case of tumor developing in the brain shortly before death. The history was as follows:

J. W., a healthy looking boy eight years of age, was well until six and a half years old; then, without any known cause, was seized with convulsions and developed right hemiplegia. When brought to the speaker, he had presented the symptoms of a typical spastic hemiplegia of the right side, including the face, and in this permanent involvement of the face presented at least one unusual feature. There was, furthermore, the history of loss of speech following the attack, and of repeated epileptic seizures involving the right hand only. His mental development was only a little retarded, his head showed the hydrocephalic condition, and during observation was noticed to increase in size. He had continued in good general condition for some time after coming under observation, when one day he suddenly fell down and the right hemiparesis of old standing was found to have developed into complete paralysis. As far as could be learned there was no loss of consciousness during this occurrence. The face was not more paralyzed than before; there was no incontinence of urine or fæces. Within a few days after this fall the boy developed fever varying between 101° and 103.5° F. During this time a disturbance of vision was developed, which ended in absolute blindness. Speech became more and more difficult; a mild stupor came on, which gradually deepened into coma. Two weeks later intermittent opisthotonos was observed, which also became permanent. After five weeks, with the continuance of all the other symptoms, left ptosis and paralysis of left rectus externus and anæsthesia of the right cornea were added; the pupillary reflexes were lost and the contractures of the right side increased. The ophthalmoscopic examination showed a retrogressive papillitis. Death finally took place eight weeks after the fall. The old hemiplegia was ascribed to a cystic formation, probably due to hemorrhage over the left motor area. A tumor growing in the wall of the old cyst was the diagnosis made and adhered to by the speaker.

In no other way could the increase of the former hemiplegia without the addition of further symptoms be explained. The tumor was supposed to be a glioma or gliosarcoma, but the development of basilar symptoms later on had led to the belief that a basilar meningitis had developed, and it was therefore erroneously assumed that the original tumor was of tubercular nature. The autopsy was performed within twenty-four hours after death. The unusual size of the brain was at once made evident, from an accumulation of fluid within the ventricles to such an amount that all trace of normal fissuration was entirely lost. While the brain was still in situ, a cyst occupying the left motor area and the tumor in its walls could be distinctly observed. After the brain had been removed, further changes were seen at the base; first of all a large cystic formation at the apex of the left temporo-sphenoidal lobe, pressing in upon and almost covering the left crus. The optic nerves were evidently atrophied, and the left abducens was extremely thin. Next in order came a large and hard tumor in the right temporo-sphenoidal lobe. In spite of the manifold lesions found in the brain of this child, there was no difficulty in explaining the relations between these lesions and the symptoms during life, nor in determining the sequence in which these various pathological conditions became established. That the old hemiplegia was due to the cyst in the left hemisphere there could be no doubt. In view of the peculiar detritus which was found, and of the very sharply defined limits of the cyst, the speaker had no hesitancy in assuming the hemorrhagic origin of this formation. The case enforced the point made in previous publications of the author's, that the autopsies which were made soon after the beginning of the disease were those which would prove most reliable.

In this case but three years had elapsed, and already the exact nature of the original process had become somewhat indistinct. The histories and results of autopsies of two other cases were also reported. The knowledge of the pathological lesions underlying these various conditions was not only a matter of scientific curiosity but it had a most distinct bearing point upon the treatment of these diseases. It was important for us to consider whether we had a right to interfere with the cerebral lesion in order that we might combat the development of idiocy or epilepsy or whether it be possible—one or the other of these conditions having been established—to obtain relief by surgical procedures. The question could not be decided unless some such analysis of the morbid lesions was attempted, as had been given in a table presented to the society. If we had to deal with a condition of parencephalus or with a condition of cortical agenesis, it was manifestly impossible to improve this state of things by an operation; and if such brain were encased within a microcephalic skull, even the recent operation of craniotomy would do no good. As for the birth palsies, no surgeon would be bold enough to attempt the removal of a subpial or subdural clot in a child only a few days old; and long before the child was strong enough to tolerate any such serious operation the mischief was done; an encephalitic or a sclerotic condition had been established for which the surgeon's knife could promise no relief. It was only in the cases of acquired cerebral palsies that one would naturally think of the possibility of operative procedure. Even in these great discrimination had to be exercised in the selection of cases.

DR. STARR had about made up his mind that the pathology of cerebral palsies was very uncertain; too uncertain to permit of surgical interference. He did not agree with Dr. Sachs in regard to operation in cases of cortical cyst. Of the nine cases on record, all the patients had died. He thought that idea of primary encephalitis as a cause in these cases should be pushed into the background.

Dr. L. C. Gray was then re-elected president and Dr. J. A. Booth elected secretary of the Society for the ensuing year.

Book Reviews.

A TREATISE ON THE DISEASES OF THE NERVOUS SYSTEM. By Wm. A. Hammond, M.D. With the Collaboration of Græme M. Hammond, M.D. Ninth edition. New York: D. Appleton & Co., Publishers.

No work ever written upon the nervous system has achieved such a success as that of Dr. Wm. A. Hammond. It not only has had a universal sale and the approval for twenty years of most all the medical schools of this country as a text-book, but also, translated into many languages, it received the confidence of the neurologists in every country.

From time to time slight changes were necessary to bring it to date, and the eighth edition when it appeared disappointed many, as it hardly expressed the prevailing opinion of the times. This ninth edition, however, has, by the careful collaboration of Dr. Græme M. Hammond, been thoroughly revised and brought up to a great degree to the views of the present time. To comment upon the discrepancies of Dr. Wm. A. Hammond's work of twenty years ago is not a just purport of a present review, but to glance over the work now, one familiar with the older editions will observe many changes.

The style and general arrangement of the work are not altered, but one sees at a glance that the anatomy and morbid pathology have been changed throughout. The Nothnagel diagnostic points of brain, cerebellum and basal ganglion have been remodeled, and the cortical localizations especially have been thoroughly corrected and brought up to date. New chapters appear on syringomyelia, pathology and classification of aphasia, Thomsen's disease, acromegaly and electrical reactions.

We note the fact that pseudo-hypertrophic paralysis has been placed among the diseases of the cord, but considered essentially as a myosis.